



REMARKS

The present amendment is to the Office Action mailed in the above-referenced case on 02/14/01. Claims 1-17 are herein presented for examination. Claims 1, 3-7, 9-15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Guy et al. (US 5,940,479) hereinafter Guy. Claims 2, 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guy in view of Andrews et al. (US 5848143) hereinafter Andrews.

In response to the Examiner's rejections, objections and statements, applicant herein amends the claims to more particularly point out and distinctly claim the subject matter regarded as patentable by the applicant, distinguishing unarguably over the references of Guy and Andrews.

Applicant herein amends claim 1 to more particularly point out an originating call appliance placing an IP call wherein the IP call terminates to a destination of another call appliance.

The Examiner states that Guy discloses a system and method for transmitting packets across a wide area network (WAN) from a local phone coupled to a computer e.g. PC-Phone, comprising at least two PC phones 103/105 and 143/145 (Internet capable call appliances) located in different locations. {Applicant respectfully points out to the Examiner that the call appliances and routers 103/105, and 143/145 do not communicate with each other. Each of said call appliances in the art of Guy place calls to destination telephones on the PSTN (col. 6, lines 36-37). } Clearly the called appliance under Guy is 142 (col 5 line 39). Nowhere in the text is it even implied that 143/145 is the destination. Nor does the art of Guy even contemplate connecting 103/105 to 143/145, much less providing COST functionality to that connection.

Guy discloses a system and method for enabling aural signals, e.g., voice signals, facsimile (fax) signals, and modem signals, to be generated and transmitted from a telephone, e.g., a PC-phone, to another telephone that is coupled to a PSTN 140, by having a GU 101B coupled to the PSTN 140 where the GU 101B allows communication between a phone 142 connected to a PSTN 140 and another phone or PC-phone connected to LAN 134 or LAN 116 over WAN 104.

Applicant's background portion describes that in a typical scenario, data-router gateways (nodes) are set-up in an IP network for point-to-point connection between nodes. Nodes local to communications centers are connected to telephony switches (usually a PBX) at respective communication centers. Typically, such IP technology only replaces switch-to-switch telephony trunking in this scenario. Applicant argues that the described prior art in applicant's specification amply, and fully describes the invention of Guy.

Applicant's specification continues to state that a problem with this approach, however, is that some PBX functions cannot be economically practiced with IP telephony. For example, if an IP call is placed from one site to a second site, and the user at the second site is having his calls forwarded to a third party at the first site, then the call must travel two times across the link. This is due to current art requirements in DNT for setting up each instance of connection from source to final destination each time a connection is needed. Because IP telephony uses shared bandwidth as opposed to having a COST dedicated connection, capacity is wasted with multiple channel establishment, and quality of service (QoS) associated with IP calls over the connection may be degraded if there are many such calls. This is true in a COST integrated IP network, as well as in an IN (true IP).

Applicant's invention provides a method and apparatus that will emulate PBX, or other standard COST-switch functions and features on an IP network, including connected communication centers, with minimal degradation of QoS or using up otherwise available resources.

Applicant's invention accomplishes this by providing software setting up and maintaining separate and distinct end node legs between call appliances and routers, and separate and distinct intermediate legs between routers, and then joining and disjoining legs to establish voice communication and to provide telephony functions between said call appliances.

As seen in applicant's Fig. 1, there are four call-legs that enable this working connection through network 11 in this example. An end-node leg A1 is established between user A and switch 19 and is illustrated by arrow A1. An intermediate call-leg A2 is established between switch 19 within site 13 and switch 21 within site 15. Leg A2 is illustrated by arrow A2. These two legs, A1 and A2 represent one half of a working connection. The other half of the working connection comprises an end-node leg B1 that is established between user B and switch 21 (directional arrow B1), and an intermediate leg B2 which is established between switch 21 and switch 19 (directional arrow B2). This working connection allows two-way voice communication using, in this instance, H323 voice protocol over the ISDN connection.

The art of Guy could not possibly accomplish the flexibility and functionality of applicant's invention simply because calls are not set up between two IP call capable appliances as claimed in applicant's invention. Further, Guy discloses a call setup/tear-down unit 404 performing and controlling the call setup procedure and the call tear-down procedure. Guy has absolutely no teaching wherein the unit 404 establishes and maintains separate nodes as in claims 3, 9 and 15.

Applicant believes claim 1 is patentable over the art of Guy as amended and argued above. Independent claims 7, 13 and 17 are also herein amended to limit the Internet capable call appliances to being the origination point of an IP call and another being the destination point of an IP call. Therefore, the remaining independent claims are also patentable as amended and argued on behalf of claim 1 above. Dependent claims 2-6, 8-12, and 14-16 are patentable on their own merits, or at least as depended from a patentable claim.

As all of the claims left standing and as amended are clearly shown to be patentable over the art of Guy, applicant respectfully requests that the rejections be withdrawn and that the case be passed quickly to issue.

If any fees are due beyond fees paid with this amendment, authorization is made to deduct those fees from deposit account 50-0534. If any time extension is needed beyond any extension requested with this amendment, such extension is hereby requested.



Version With Markings to Show Changes Made

1. (Twice Amended) A system for simulating connection-oriented telephony functions in an IP network, comprising:

two or more IP routers interconnected with at least two [or more] Internet-capable call appliances on the network; and

software managing setup and execution of IP calls between call appliances through the routers;

wherein IP calls are managed between one of said call appliances originating IP calls, wherein the IP calls terminate to an end destination of another of said call appliances by the software by setting up separate and distinct end node legs between call appliances and routers, and separate and distinct intermediate legs between routers, and then joining and disjoining legs to establish voice communication and to provide telephony functions between said call appliances.

7. (Twice Amended) A method for simulating connection-oriented telephony functions in an IP network, comprising steps of:

(a) managing IP calls by interconnecting two or more IP routers with two or more Internet capable call appliances on a network, at least one of said call appliances originating the IP calls, and terminating IP calls to destinations at another of said call appliances;

(b) setting up separate and distinct end-node call legs between the call appliances and routers, and separate and distinct intermediate call legs between routers; and

(c) joining and disjoining legs to provide telephony functions between said call appliances.

13.(Once Amended) A method for establishing an IP telephone call from a first IP-capable appliance through first and second IP routers to a second IP-capable appliance, comprising steps of:

(a) setting up a separate and distinct end-node call leg between the first appliance originating an IP call and the first router;

(b) setting up a separate and distinct end-node call leg between the second appliance receiving and being the destination for the IP call, and the second router;

(c) setting up at least one separate and distinct intermediate call leg between the first and second IP routers; and

(d) joining the call legs to establish voice communication between said first and second appliances.

14. (Once Amended) The method of claim 13 further comprising additional interconnected routers and appliances, and including steps for setting up further call legs to additional appliances and between routers, and for joining and disjoining call legs to establish the voice communication by different paths over established call legs.

17. (Twice Amended) A system for simulating connection-oriented telephony functions in an IP network, comprising:

two or more IP routers interconnected with two or more Internet capable call appliances on a network; and

software managing setup and execution of IP calls between call appliances through the routers;

wherein IP calls are managed by the software by setting up call legs between call appliances and routers, and between routers, which can then be manipulated, disjoined and joined to establish voice communication and to provide telephony functions between call appliances wherein one of said call

appliances is the originator of the IP calls and another of said call appliances is the end destination of the IP calls.

Respectfully Submitted,
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